

GENESIS MISSION ELECTRONIC NEWSLETTER



49th Edition, December 2003
<http://genesission.jpl.nasa.gov/>



LOOKING BACK: THE BEST OF 2003

2003 was a year collecting solar wind in preparation for the sample return and science analysis phases of the mission.

JANUARY

If you flew United...

Thousands of passengers who flew United Airlines both domestically and internationally had the opportunity to watch an in-flight video on the Genesis mission during the month of January. The recently released Genesis mission video titled "Testing to Assure Mission Success" gives the viewer a look inside Los Alamos National Laboratory. The video and learning materials are online at:
http://www.genesission.org/product/lanl_video_product.html



FEBRUARY

February 28 Genesis hits the halfway mark!

What exactly IS solar wind?

"What IS solar wind, and why do we study it? How does solar wind affect the planets in our solar system?" The Genesis mission Web site features a new public module titled "Solar Wind, Genesis, and the Planets" in the Science section of the site at:
<http://www.genesission.org/science/index.html>



MARCH

Rocket into Spring

As we bid winter good-bye and welcome spring, science teachers often ask us what kinds of Genesis outdoor activities are available for download.

"Investigating Water Rockets" is a great water bottle rocket activity from our *Dynamic Design: Launch and Propulsion* module.

http://www.genesission.org/educate/scimodule/Launch_Propulsion.html

APRIL

Students get involved!

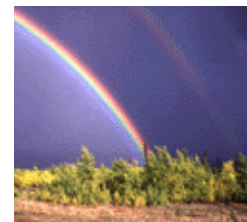
Dara Mersky was 17 years old and a high school student when she composed the pieces that became the musical signature for the "Testing to Assure Mission Success" video. Dara notes, "It's definitely a greater accomplishment than I ever expected to achieve with my music, because the compositions were something that I just did for fun. I'm grateful that I was able to contribute to something so worthwhile." Meet Dara at:
http://www.genesission.org/product/student_spotlight/daramersky.html



MAY

Fun in the sun activities for kids

Why are rainbows bent? Why aren't clouds square? Why do my legs look crooked when I dangle them in water? Find answers to these questions and more in the Genesis Kids section of the mission Web site! You wanna get cooking? The sun can be a great source of heat for making solar treats. For summer fun, visit our "Roping Rainbows" page on the Genesis Web site at:



http://www.genesission.org/product/genesis_kids/ropingrainbows/ropingrainbows.html

JUNE

Mission Update

June 27, 2003 439 days to Earth return!

The Genesis spacecraft continues its mission collecting solar wind material expelled from the Sun. Telemetry from the Genesis spacecraft indicates that all spacecraft subsystems are reporting nominal operation.

The Genesis Navigation Team released its final report on Station Keeping Maneuver SKM-4A

performed on June 11. The report indicates the

spacecraft performed 'as advertised' with the 1.274 meter-per-second change in velocity. Recent solar activity has called for the 'high solar speed' collector array to be deployed 47% of the time, and the E-Array, which handles coronal mass ejections, 46% of the time. The 'low solar speed' collector was unshaded the remaining 7%.



JULY

Blast loves to get e-mail from Genesis Kids.

A Genesis friend named Alastair asks:

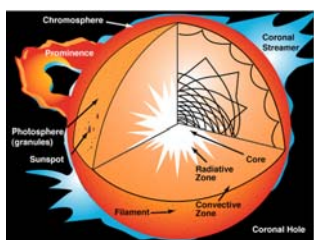
Alastair: *What is the sun made of?*

Blast: The sun has four main layers:

1. The core - middle
2. The photosphere – light sphere
3. The chromosphere – color sphere
4. The corona – crown

The sun is made up mostly of these 2

elements: Hydrogen & Helium. The Genesis mission is collecting elements from the sun so that we will know how much there is of each element.



Your friend, BLAST --- "Science is a BLAST!"

p.s. You can send BLAST a question online at:

http://genesissmission.jpl.nasa.gov/product/genesis_kids/index.html

AUGUST

The Sun Catcher

The July 26 issue of "New Scientist"

contains a comprehensive article on the Genesis mission and the extraordinary mid-air recovery technique that will be used upon its return. Author Hazel Muir previews the Genesis sample return event and features



statements from helicopter pilot Cliff Young, Genesis Principal Investigator Don Burnett, and Program Manager Don Sweetnam.

SEPTEMBER



Hex Marks the Spot

The Genesis team met at the Utah Test and Training Range approximately one year before the

scheduled capsule arrival date of 9/8/2004.

Team members traveled to a location inside the capsule arrival zone, a large elliptical-shaped area that defines the area within which the capsule is expected to return to Earth. They placed a hexagonal wafer on the desert floor in anticipation of a successful capsule return.

<http://genesissmission.jpl.nasa.gov/mission/index.html>

OCTOBER

"What in the World is Mass Spectrometry?"

What does a

mass

spectrometer

do and how

does it work?

This historically

important

technology is

likely to play a

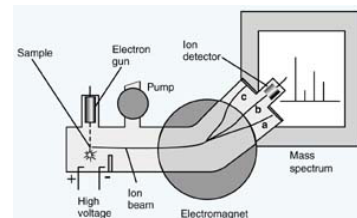
major role in the research phase of the Genesis

project when the solar wind samples are

returned to Earth for analysis. Learn more about

mass spectrometry online at:

http://genesissmission.jpl.nasa.gov/science/mod3_SunlightSolarHeat/MassSpectrometry/index.html



NOVEMBER

Genesis' New Look

NASA's Genesis Web site homepage has a new

look with feature items that center upon the

upcoming sample return event in September

2004. Stay tuned in coming months for site-wide

changes! <http://genesissmission.jpl.nasa.gov/>

DECEMBER

Where is the Genesis Spacecraft Now?

View the simulated [position of the Genesis spacecraft](#).

Most images are updated every 10 minutes.

